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| 09/157,758 | 09/21/1998 | RAAFAT EDWARD KAMEL | KAMEL-2-15-1 | 2883 |

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EXAMINER

TON, DANG T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2666

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DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

TS

Office Action Summary

Application No.

09/157,758

Applicant(s)

KAMEL ET AL.

Examiner

DANG T TON

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/9/2003 and 10/15/2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,4,8,9,15,21,and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen(newly cited 5,982,760) .

For claim 1, Chen discloses a wireless communications system having a base station (see column 3 line 11) and a mobile unit (see column 3 line 12), a method for setting initial power levels between the mobile unit and the base station upon receipt of a service request (see column 6 lines 51-56) , the method comprising the steps of: calculating, at the base station, an interference measure based on the first power, where the first power of a pilot signal received at mobile unit (see column 3 lines 50-60) ;

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and setting an initial power level in a forward link based on the interference measure (see column 4 lines 26-42).

For claim 4, Chen discloses a method further comprising receiving , at the base station a value of the first power a request for services transmission from the mobile unit (see column 6 lines 40-45).

For claim 8, Chen discloses a method further comprising receiving , at the base station a value of the first power in an access channel transmission from the mobile unit (see column 9 lines 42-55).

For claim 9, Chen discloses a wireless communications system having a base station (see column 3 line 11) and a mobile unit (see column 3 line 12) , a method for setting up a call between the mobile unit and the base station, the method comprising the steps of:

receiving a request for services over an access channel from the mobile unit (see column 9 lines 42-55 and column 6 lines 51-56);

determining an interference measure based on a first power, where the first power is the power of a pilot signal received at the mobile unit, a value of the first power being received by the base station over the access channel (see column 3 lines 50-60);

and setting an initial power level in a forward link traffic channel transmission based on said interference measure (see column 4 lines 26-42).

For claim 15, Chen discloses a wireless CDMA based communications system having a base station (see column 3 line 11) and a mobile unit (see column 3 line 12), a method for setting up a call between the mobile unit and the base station (see column 6 lines 51-56), the method comprising the steps of: receiving an access probe from the mobile unit (see column 4 lines 28-29); determining an interference measure based on a first power, where the first power is power of a pilot signal received at a mobile unit, a value of the first power in the access probe (see column 3 lines 50-60); and setting an initial power in a forward link traffic channel transmission based on the interference measure (see column 4 lines 26-42).

For claim 21, Chen discloses a wireless communications system having a base station (see column 3 line 11) and a mobile unit (see column 3 line 12), a method for setting initial power levels (see column 4 lines 26-42) between the mobile unit and the base station, the method comprising the

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steps of calculating an interference measure based on a first power, where the first power of a pilot signal at the mobile station unit and a second power, where the second power is the power of the pilot signal transmitted by the base station (see column 3 lines 50-60);

and a setting an initial power level in a forward link based on said interference measure (see column 4 lines 26-42).

For claim 22, Chen discloses a method wherein the step of calculating determines a difference between the first power and the second power (see column 3 lines 11-19).
(see Tx power, fade, and Rx power in Fig 4)

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen.

For claim 2, Chen discloses a method wherein the step of calculating determines a difference between the first power and the second power, where the second power is power of the pilot signal transmitted from the base station (see column 3 lines 11-19).

For claim 2, Chen discloses all the subject matter of the claimed invention with the exception the steps of calculating the difference of power at the base station (Chen calculates the difference at the mobile station). However, it is well-known in the art to use the step of calculating, at the mobile unit, difference power between the TX power from the base station and RX power at the mobile unit as taught by Chen by calculating the difference power at the base station. Thus, it would have been

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obvious to the person of ordinary skill in the art at the time of the invention to use calculating the difference power between TX power and RX power at the base station instead of at the mobile unit . The calculating difference power can be implemented/modified into the network of Chen by using the comparing the TX power from the base station and RX power at the mobile unit at box 204 (base station side) since the base station also has comparing received messages (see box 204 item 3). The motivation for calculating the difference power between TX power and RX power at the base station being that it provides improved power control in closed loop communication system since the base station may able to react quickly to adapt its transmission power and calls can be avoided terminated.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

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U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3,5,6,12,13,18,23,24,and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Love et al.

For claims 3,5,6,12,13,18,23,24, and 25, Chen discloses all the subject matter of the claimed invention with the exception of the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_o , represents a ratio between energy per chip to interference density as recited in claims 3 and 23; wherein the interference measure indicates interference levels due to other base station and mobile receive noise as recited in claims 5,9,12,18, and 24; and wherein the interference measure being linearly related to the initial power

level in a communications network as recited in claims 6, 13, and 25. Love et al from the same or similar fields of endeavor teaches a provision of the mobile unit received pilot power and the base station transmitted pilot power are defined by the ratio E_c/I_o , and wherein each the E_c/I_o , represents a ratio between energy per chip to interference density (see equation 1 in column 3 line 62); the interference measure indicates interference levels due to other base station and mobile receive noise (see other cells at column 3 lines 52-53); and the interference measure being linearly related to the initial power level (see column 4 lines 53-55). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_o , represents a ratio between energy per chip to interference density; the interference measure indicating interference levels due to other base station and mobile receive noise; and interference measure being linearly related to the initial power level in a communications network as taught by Love et al. in the communications network of Chen. The TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_o , represents a ratio between energy per chip to interference density; the

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interference measure indicating interference levels due to other base station and mobile receive noise ; and

interference measure being linearly related to the initial power level in a communications network as taught by Love et al can be implemented/modified into network of Chen since Chen does teach improved power control in a closes loop communication system and the base station box 204 can perform the functions above. The motivation for using the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_0 , represents a ratio between energy per chip to interference density ; the interference measure indicating interference levels due to other base station and mobile receive noise ; and

interference measure being linearly related to the initial power level in a communications network as taught by Love et al. being that it provides a need for controlling the forward link communication capacity in response to the forward link interference limitation to maximize the forward link capacity, and prevent involuntary dropping of the calls.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7,14,20,and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Meidan et al.

For claims 7,14,20, and 26, Chen discloses all the subject matter of the claimed invention with the exception of the interference measure being monotonically related to the initial power level in a communications network. Meidan et al. from the same or similar fields of endeavor teaches the estimated carrier to interference power ratio with a metric at least comprising a monotonically related function (see column 18 lines 41-50). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the monotonically interference measure as taught by Meidan et al. in the communications network Love et al. . The monotonically interference measure as taught by Meidan et al. can be modified/implemented into the communications network Chen since Chen also disclose the interference measure but not specific using the monotonically interference measure related to the initial power level. The motivation for using the monotonically

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interference measure as taught by Meidan et al in the communications network of Chen being that it provides for improving detection of data bits in data samples and a need for controlling the forward link communication capacity in response to the forward link interference limitation to maximize the capacity prevent involuntary dropping of the calls.

6. Claims 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view in view of Nakato et al.

For claims 10 and 16, Chen disclose a difference between the first power and the second power , where the second power is power of the pilot signal transmitted from the base station (see column 3 lines 11-19); and subtracting the value from a second power, where the second power is the power of the pilot signal transmitted from the base station (see column 3 lines 11-19).

For claims 10 and 16, Chen discloses all the subject matter of the claimed invention with the exception of extracting the mobile unit received pilot power from the transmitted messages in access channel/probe in a communications network. Nakano et al. from the same or similar fields of endeavor teaches the second received data by spreading the data signal by the data channel dispreading circuit and obtains received pilot signal be spreading data signal by the pilot channel dispreading

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circuit (see column 5 lines 30-35). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the despreading circuits/extracting circuits as taught by Nakano et al. in the communications network Chen. The despreading circuits/extracting circuits as taught by Nakano et al. can be implemented/modified by connecting the despreading circuit at the base station of Chen since the probe signal received at the base station from the mobile station. The motivation for using the despreading circuits/extracting circuits as taught by Nakano et al. into the communications network of Chen being that it provides a system reliable since it is possible to despread the pilot signal and control the transmission power accurately.

7. Claims 11,17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Nakato et al. as applied to claims 10 and 16 above, and further in view of Love et al.

For claims 11,17,and 19 Chen and Nakato et al. disclose all the subject matter of the claimed invention with the exception of the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_0 , represents a ratio between energy per chip to interference density as recited in claims 11 and 17 ; and wherein the interference measure being linearly related to the

initial power level in a communications network as recited in claims 19 . Love et al from the same or similar fields of endeavor teaches a provision of the mobile unit received pilot power and the base station transmitted pilot power are defined by the ratio E_c/I_o , and wherein each the E_c/I_o , represents a ratio between energy per chip to interference density (see equation 1 in column 3 line 62); and the interference measure being linearly related to the initial power level (see column 4 lines 53-55). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_o , represents a ratio between energy per chip to interference density ; and interference measure being linearly related to the initial power level in a communications network as taught by Love et al. in the communications network of Chen and Nakata. The TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_o , represents a ratio between energy per chip to interference density ;and interference measure being linearly related to the initial power level in a communications network as taught by Love et al can be implemented/modified into network of Chen since Chen does teach improved power control in a closes loop communication system and

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the base station box 204 can perform the functions above. The motivation for using the TX power and RX power defined by the ratio E_0/I_0 , wherein each the E_c/I_0 , represents a ratio between energy per chip to interference density ; and interference measure being linearly related to the initial power level in a communications network as taught by Love et al. in the communications network of Chen and Nakato being that it provides a need for controlling the forward link communication capacity in response to the forward link interference limitation to maximize the forward link capacity, and prevent involuntary dropping of the calls.

10. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

In the remarks of 07/09/2003 and 10/15/2003, applicant traverses the rejection of claims under 25 U.S.C 102 and 103. The traversal is based on ground that reference fails to teach setting the initial power level in a forward link based on an interference measure. This argument is not found to be persuasive. applicant's attention is directed column 3 lines 7-13 wherein it teaches when the quality of the feedback link becomes unacceptable, the base station and mobile station

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preferably enter into an alternative mode of operation, adjusting from a fast power control feedback mode to a slow power control feedback mode.

In response to applicant's argument that there is no suggestion to combine the references and there is no evidence that one of ordinary skill in the art would find it obvious to make and use the present claimed invention, the Examiner recognizes that references cannot be arbitrarily combined and that there must be some reason why one skilled in the art would be motivated to make the proposed combination of primary and secondary references. In re Nomiya, 184 USPQ 607 (CCPA 1975). However, there is no requirement that a motivation to make the modification be expressly articulated. The test for combining references is what the combination of disclosures taken as a whole would suggest to one of ordinary skill in the art. In re McLaughlin, 170 USPQ 209 (CCPA 1971). References are evaluated by what they suggest to one versed in the art, rather than by their specific disclosures. In re Bozek, 163 USPQ 545 (CCPA) 1969 (see explanation for 103 rejections in this office action).

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

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Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANG T TON whose telephone number is 703-305-4739. The examiner can normally be reached on MON-WED, 5:30 AM-6:00 PM and Thur 5:30-9:30 A.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RAO SEEMA can be reached on 703-308-5463. The fax phone number for the

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organization where this application or proceeding is assigned is
(703) 872-9306.

Any inquiry of a general nature or relating to the status
of this application or proceeding should be directed to the
receptionist whose telephone number is 703-305-3900.

D. Ton



DANGTON
PRIMARY EXAMINER